

REMARKS

Remark 1:

Applicant submits the amendments to the claims render the claims more definite. Applicant submits the claims are still allowable and urges the Examiner to further consider the following remarks.

Remark 2:

Applicant sincerely and with good reason respectfully requests Examiner withdraw the cited prior art as obviating prior art under 35 U.S.C. 103(a).

The AgrEvo reference is directed solely to nothing more than traditional, wick-type liquid emanators with a heating element. There is no suggestion that such wick-type emanator would be improved by use of a bubble-jet device to produce fine droplets of insecticide in an environment. Indeed, the mechanism of emanation of the insecticidal liquid is fundamentally different - the AgrEvo device relies on mere evaporation, a physical process which is a function of concentration. The lower the concentration of vaporized insecticidal liquid, the greater the driving force causing evaporation of the liquid into a gas. In an environment essentially infinite times greater than the volume of the wick itself, as liquid is heated and evaporated, the concentration gradient from inside the wick to outside the wick drops dramatically, and a constant drive toward equilibrium across the wick/environment interface causes continued evaporation of the liquid. This is essentially a process defined by simple evaporation. However, utilization of a bubble-jet device to draw liquid through a capillary tube, flash vaporize a small, predetermined volume and eject a tiny droplet relies upon mechanical energy produced through volumetric expansion accompanying phase transition for ejecting the droplets into the atmosphere. Both the mechanics and dynamics of evaporative gaseous emanation on the one hand and bubble-jet ejection of tiny liquid droplets on the other hand are fundamentally and inherently different and distinct.

The device of van der Heijden is nothing more than AgrEvo. In fact, it is less. There is no heater disclosed in van der Heijden, but otherwise, it emanates precisely the same mechanism as does the AgrEvo device. Admittedly, van der Heijden teaches structure which comprises a sealable reservoir, liquid wick and contacting mechanism which is different than that taught by AgrEvo, but they are both ultimately nothing more than traditional evaporative emanators.

Denen et al. is directed to a piezo-electric vibratory liquid atomizer. An actuating element is energized by an alternating voltage to expand and contract and thereby to vibrate an orifice plate. Mechanical energy drives liquid through an orifice, thereby resulting in atomization of the liquid. Neither the term "bubble" or any variation thereof, "jet" or any variation thereof, nor the term "vapor" or any variation thereof is used in the entire specification! It can hardly be suggested that Denen et al "suggests" in any way, shape or form bubble-jet technology. Structurally there is no resemblance between oscillating vibratory plates with an orifice on the one hand and a capillary tube with a distally positioned resistive heating element.

So, as one can see, Denen et al., van der Heijden and AgrEvo all teach directly away from the invention. There is not a single reference to bubble-jet devices or related technology in all three references, nor do they anticipate the structure of a bubble-jet device.

Remark 3:

Note, it is well settled that in order for references to be properly combined, there must be a teaching in at least one of the references to suggest that the disclosure of any of the other references could be modified to produce an applicants' claimed invention. ACS Hospital System, Inc. v. Montefiore Hospital et al., 221 U.S.P.Q. 929 (Fed. Cir. 1984); Orthopedic Equip. Co. v. U.S., 217 U.S.P.Q. 193 (Fed.

Cir. 1983). Additionally, absent some suggestion or incentive, the teachings of references may not be combined. ACS, supra, 221 U.S.P.Q. 933, In re Rinehart, 531 F. 2d 1048, 189 U.S.P.Q. 143 (C.C.P.A. 1976).

Applying this law to our situation here, there is no combination of any or all of the cited references which would result in the present invention. There thus is no motivation, teaching or incentive to result in Applicants' method of communicating insecticidal liquid through a capillary tube, vaporizing a portion and ejecting resulting droplets of liquid into the atmosphere.

In addition, applicants further remark that to attempt to combine any of these references in any order, as the action seems to do, is directly contrary to established rationale for combining references in an alleged obviousness rejection. The ACS Hospital and Rinehart references first discussed above note that modification of any of the references must, at a very minimum, be suggested in any of the references. In the review of each of the three references, there is a glaring lack of any teaching to replace either an evaporative, wick-type emanator or a piezoelectric-actuated pair of vibrating plates and orifice with a capillary tube and resistive heating element for flash vaporization of a volume of liquid. Recall, the admonition of ACS Hospital that "... absent some suggestion or incentive, the teachings of references may not be combined." This means that there must be a logical reason provided for combining the teachings of references. Otherwise, the only conclusion one could reach is the combination was achieved through hindsight reconstruction of applicants' own invention.

This clearly cannot have been intended by the Office Action, since it is well known that hindsight reconstructions based on the applicants' own invention are vehemently forbidden. In re Fritch, 23 U.S.P.Q. 2d 1780, 1784 (Fed. Cir. 1992). Fritch is directly applicable herein. In Fritch, it was found that

there was a failure to provide a teaching of the desirability of modifying one reference with the teachings of another. According, the Court of Appeals for the Federal Circuit held:

"Here, the Examiner relied upon hindsight to arrive at the determination of obviousness. It is impermissible to use the claimed invention as an instruction manual or 'template' to piece together the teachings of the prior art so that the claimed invention is rendered obvious. This court has previously stated that '[o]ne cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention.' " (Fritch, at 1784)

Accordingly, the obviousness rejection based on the combination of AgrEvo, van der Heijden and Denen et al. cannot stand and must be withdrawn. Not to do so would otherwise be perceived as a hindsight reconstruction, which, Applicants are assured would not be the Examiner's intent since this is so expressly proscribed by the patent laws.

More importantly, however, it is a simple fact that combination of all three of the cited references simply won't result in the claimed invention. Certainly none of the structure and essentially none of the function of the present invention is taught by the combination of prior art references.

Remark 4: (NO NEW MATTER)

Applicant submits that the corrections presented herein present no new matter. All of the devices, systems, methods and/or compositions claimed herein are taught in the Drawings, Specification, Claims and Abstract and other portions of the Application as originally filed.

Remark 5: (REQUEST FOR TELEPHONIC OR IN-PERSON EXAMINER'S INTERVIEW)

Applicant hereby invites and requests the Examiner to attempt to resolve any further defects, deficiencies, errors or other grounds of rejection or objection to the present application, either on a formal or informal basis, by Telephonic or In-Person Examiner's Interview under 37 CFR 1.133 (see also MPEP

713.01 et seq.). Attorney for Applicant(s) can be reached from 9:00 AM-5:00 PM Monday-Friday at telephone number 650-348-1444 or by fax to (650) 348-8655 or by e-mail at RKS@attycubed.com.

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CONCLUSION

Applicant respectfully submits that for all the foregoing reasons, the claimed subject matter describes patentable invention. Furthermore, Applicant submits that the specification is adequate and that the claims are in a condition for allowance. No new matter has been entered.

Applicant hereby respectfully requests Examiner to enter these amendments, find them descriptive of useful, novel and non-obvious subject matter, and authorize the issuance of a utility patent for the truly meritorious, deserving invention disclosed and claimed herein.

Without further, Applicant does not intend to waive any claims, arguments or defenses that they may have in response to any official or informal communication, paper, office action, or otherwise, and they expressly reserve the right to assert any traverse, additional grounds establishing specificity and clarity, enablement, novelty, uniqueness, non-obviousness, or other patentability, etc.

Further, nothing herein shall be construed as establishing indirectly the basis for any prosecution history, file wrapper estoppel, or similar in order to limit or bar any claim of infringement of the invention described herein, either directly or under applicable doctrine of equivalents.

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Respectfully submitted,

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Dated: March 28, 2006

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CERTIFICATE OF MAILING

I hereby certify that this paper and the documents attached hereto are being deposited in a postage prepaid, sealed envelope with the United States Postal Service using First Class Mail service under 37 CFR 1.08 on the date indicated and is addressed to "Commissioner for Patents, Alexandria, Virginia 22313-1450". Signed: [Signature]
Date Mailed: March 28, 2006

AMENDMENT AND RESPONSE TO PAPER MAILED 11/30/2005

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Title: :LIQUID EMANATOR DEVICE TO DELIVER
SELF-SUSPENDING INSECTICIDE DROPLETS
Serial No.: 09/870,117
Attorney Docket No.: CLX-602 (470.136A)
Amd&RespToPapMail-113005 032806-1.wpd